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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,231	11/25/2003	Toshihiro Shima	MIPFP067	9194

25920 7590 04/01/2008

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EXAMINER	
QIN, YIXING	

ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
04/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,231	SHIMA, TOSHIHIRO	
	Examiner	Art Unit	
	Yixing Qin	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) *19-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/17/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-18 in the reply filed on 1/14/08 is acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

I. Claims 1-6, 10, 11, 14-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (U.S. PG. Pub. No. 2002/0149799) in view of Shimada (U.S. PG. Pub. No. 2003/0038962)

Regarding claims 1, 17, 18, Hayashi discloses a printing device connecting with a network, said printing device comprising:

a data receiver module that receives a print job, which includes specification of a number of copies to be printed and is transmitted from a device connecting with the network; (P[0099] discloses an interface for sending and receiving image data from a host.)

a printing device specification module that specifies each of other printing devices connecting with the network as an alternative printing device to which the print job is transferable; (Fig. 5 shows that two other copiers are designated)

a job transfer module that, when the specified number of copies to be printed is a plural number, transfers a modified print job, which includes setting of a less number of copies than the specified number as a number of copies to be transferred, to at least part of the specified alternative printing devices for printing; (P[0071] – transceiver provides a linkage start instruction to perform printing on linked printing devices as show in Fig. 5) and

Hayashi does not explicitly disclose "a copy number management module that manages a total number of copies including a number of copies printed by at least part of the specified alternative printing devices, so as to eventually attain printing of the specified number of copies."

However, Shimada discloses in P[0095-0105] examples of how copies are distributed across various number of printers. This acknowledgement of, for example, four copies of a certain page is an indication that there is a management of the copies, by a function or module. It would be obvious that this module can be the multi printer controller as shown in Figs. 13 and 14 of Shimada.

Hayashi and Shimada are combinable because both are in the art of distributing copies to multiple printing devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have managed a total number of copies.

The motivation would have been to ensure that the right amount of copies was printed.

Therefore, it would have been obvious to combine Hayashi and Shimada to obtain the invention as specified.

Regarding claim 2, Hayashi discloses a printing device in accordance with claim 1, wherein said job transfer module repeatedly executes the transfer of the modified print job, when there are still multiple copies to be printed. (the secondary reference Shimada discloses various examples, in P0104-0107] the four copies are sent to each printer where one printer has a single copy to print)

Regarding claim 3, Hayashi discloses a printing device in accordance with claim 2, wherein the specified alternative printing device has a function of spooling a print job therein, and

said job transfer module does not retransmit the modified print job to the alternative printing device that spools the modified print job transferred thereto, but transmits an execution instruction of the modified print job. (Fig. 5 shows that image data is sent and processed individually at each copy machine, so the job does not need to be retransmitted. P[0071] discloses a linkage print command)

Regarding claim 4, Hayashi discloses a printing device in accordance with claim 1, wherein said copy number management module notifies the device, which has transmitted the print job, of a total number of printed copies including the number of copies printed by at least part of the specified alternative printing devices. (the secondary reference, Shimada again shows in P[0095-0105] there are, for example, four copies printed at each printer.)

Regarding claim 5, Hayashi discloses a printing device in accordance with claim 1, wherein the number of copies set in the modified print job is equal to 1. (the secondary reference Shimada discloses various examples, in P0104-0107] the four copies are sent to each printer where one printer has a single copy to print)

Regarding claim 6, Hayashi discloses a printing device in accordance with claim 1, wherein said printing device specification module retrieves a printing device on the network that is able to execute printing of the print job received by said printing device without any conversion and specifies the retrieved printing device as the alternative printing device. (Figs. 1 and 5 of Hayashi discloses that all color copying machines are the same, so there would be no conversion issues when sending from one machine identical to another)

Regarding claim 10, Hayashi discloses a printing device in accordance with claim 1, wherein said job transfer module transfers the modified printing job with control information that prohibits further transfer of the modified print job from the specified alternative printing device to another printing device. (the secondary reference, Shimada discloses in P[0050] that if for example that a printer is out of print sheets or the like, then transmission of data to the printer is stopped.)

Regarding claim 11, Hayashi discloses a printing device in accordance with claim 1, wherein said printing device specification module retrieves a printing device on the network that has received either of the print job and the modified print job and excludes the retrieved printing device from specification of the alternative printing device. (Fig. 5 shows that once a copier has received image data, it does not get it again.)

Regarding claim 14, Hayashi discloses a printing device in accordance with claim 1, said printing device further comprising:

a required time evaluation module that evaluates a time required for execution of the modified print job with regard to each of the other printing devices on the network, wherein said printing device specification module excludes each of the other printing devices having the required time of not less than a preset level from specification of the alternative printing device. (P[0006] and P[0124] – the time to execute the job is taken into consideration and an optimal distribution technique is performed.)

Regarding claim 15, Hayashi discloses a printing device in accordance with claim 1, said printing device further comprising:

a printing execution module that executes printing of the modified print job, wherein said job transfer module executes the transfer of the modified print job, synchronously with an operation of said printing execution module to read out the modified print job. (Fig. 5 shows synchronous processing and printing)

Regarding claim 16, Hayashi discloses a printing device in accordance with claim 1, wherein said job transfer module comprises:

a divisional transmission sub-module that divides the modified print job into multiple divisional data and transmits the multiple divisional data to the specified alternative printing device; (the secondary reference Shimada discloses various examples, in P0104-0107] the four copies are sent to each printer where one printer has a single copy to print) and

a pointer management sub-module that manages a pointer for identifying a data position where transmission of the modified print job is completed, with regard to each of the specified alternative printing devices (P[0013-0014] discloses the transfer of copies to the other printers)

II. Claims 7-9, 12, 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (U.S. PG. Pub. No. 2002/0149799) in view of Shimada (U.S. PG. Pub. No. 2003/0038962) and further in view of Kato (U.S. PG. Pub. No. 2003/0007818)

Regarding claim 7, Hayashi discloses a distributed printing system.

It does not explicitly disclose "said printing device specification module specifies a residual operating life with regard to each of the specified alternative printing devices, and

said job transfer module sets the number of copies to be transferred to each of the specified alternative printing devices, based on the specified residual operating life."

However, Kato discloses in P[0042-0043] that a distribution rates can be set for the various printers. This sets how the percentages of the total job is to be distributed to each printer.

All references are combinable because they are in the art of distributed printing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have sets the number of copies based upon life of the printer.

The motivation would have been so that one printer is not worn out too fast.

Therefore, it would have been obvious to combine all references to obtain the invention as specified.

Regarding claim 8, Hayashi discloses a printing device in accordance with claim 7, wherein said job transfer module increases the number of copies to be transferred to

the specified alternative printing device that has a longer residual operating life. (as mentioned above, the distribution can be set for a higher amount for different printers.)

Regarding claim 9, Kato discloses a printing device in accordance with claim 7, wherein each of the specified alternative printing devices has a preset target time reaching its operating life, and said job transfer module sets the number of copies to be transferred to each of the specified alternative printing devices by taking into account the target time. (P[0042-0043] of Kato)

Regarding claim 12, Kato discloses a printing device in accordance with claim 1, wherein said job transfer module, when a print job received from another printing device connecting with the network is transferred to the specified alternative printing device, notifies the another printing device, as a sender of the print job, of specification of the alternative printing device as a transfer destination. (Fig. 7 S75 of Kato discloses that there is a list of printers that are used for the jobs.)

Regarding claim 13, Kato discloses a printing device in accordance with claim 1, said printing device further comprising:

a tabulated data transmission module that, when said data receiver module receives a print job from a device other than printing device, generates tabulated data for specifying all printing devices that execute either of the print job and the modified print job, based on a notification from each of the specified alternative printing devices,

and transmits the tabulated data to each of the specified alternative printing devices. (Figs. 1 and 2 and P[0041] discloses determining one to four printers for printing.)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625